INL News Release
FOR IMMEDIATE RELEASE
June 3, 2008

NEWS MEDIA CONTACTS:
Reuel Smith, 208-526-3733, reuel.smith@inl.gov
John Walsh, 208-526-8646, john.walsh@inl.gov

INL research has aided Yucca Mountain Repository application

IDAHO FALLS -- Today, Energy Secretary Samuel Bodman submitted the U.S. Department of Energy's license application to the Nuclear Regulatory Commission (NRC) for authorization to construct a geological repository at Yucca Mountain in Nevada. This is a significant milestone, one in a series of events to construct the repository for disposal of commercial and government-owned spent nuclear fuel and high-level waste, including spent nuclear fuel and high-level waste stored in Idaho.

Beth Sellers, manager of DOE's Idaho Operations Office, said, "Were it not for INL's role within the National Spent Nuclear Fuel Program, the Department of Energy would not be in a position to ship the spent nuclear fuel currently stored in Idaho to the Yucca Mountain site. When the repository opens, we will be able to comply with our 1995 commitment to Idaho to ship spent nuclear fuel and high- level waste out of the state by 2035."

Mention of the proposed Yucca Mountain Repository hits close to home for many Idaho National Laboratory researchers who've spent years evaluating its feasibility. For more than 10 years, INL has supported the DOE Office of Civilian Radioactive Waste in its efforts to open the repository.

INL is home to DOE's National Spent Nuclear Fuel Program and is responsible to ensure that DOE spent nuclear fuel and high-level waste, stored at various DOE sites, is properly prepared for transportation and disposal at the repository. The program has worked closely with the Yucca Mountain Project to make sure that these DOE materials are included in the Yucca Mountain license application and supported with technical documentation.

Analytical Studies & Technical Reviews
INL's support work also included an extensive review of the Supplemental Environmental Impact Statement prior to it being released for public review and comment. Since 2007, INL staff performed a number of the necessary analytical studies and technical reviews of DOE's license application to ensure compliance with NRC requirements.

Autonomous Cask Welding System
In addition to work on the license application, INL has provided significant technical support for the overall development of repository facilities. INL has also been designing and testing an autonomous and remote system that will weld, inspect and permanently seal spent fuel in highly specialized waste disposal packages.

These sealed canisters, ranging in size from 6 to 7 feet in diameter and up to 19 feet in length, must meet the rigorous requirements for disposal within the Yucca Mountain Repository. Since high radiation fields require the entire operation to be done remotely, INL's Waste Package Closure System is an essential and key element of the facility's operation. Ultimately, more than 10,000 canisters will go through this welding process before going into the repository.

Philip Wheatley, INL's Yucca Mountain relationship manager, said, "We have a proven history of spent fuel canister welding process development and this expertise will help the Yucca Mountain Project and the nation's need for the safe disposal of nuclear waste."

Wheatley added that other areas of INL expertise – robotics, hot cell design and operations, systems engineering and automated welding – made INL attractive to the Yucca Mountain Project team.

Other contributions
The laboratory developed a standardized, versatile spent fuel storage and shipping canister capable of securely shipping 250 types of DOE spent fuel. This research and development effort alone saved taxpayers more than a billion dollars in preparing and shipping spent fuel. INL for decades has been involved with DOE's emergency response and first-responder training programs associated with fuel shipments.

INL is one of the DOE's 10 multiprogram national laboratories. The laboratory performs work in each of the strategic goal areas of the DOE: energy, national security, science and environment. INL is the nation's leading center for nuclear energy research and development. Day-to-day management and operation of the laboratory is the responsibility of Battelle Energy Alliance.

Visit our Web site at www.inl.gov
-INL-08-022-

News Release Archive